

Amendments to the Claims

Claims 88-95 are canceled, claims 38 and 81 are amended and claim 96 is newly added. Claims 38-40, 42, 48, 50, 78, 81-87 and 96 are pending upon entry of this amendment. Changes to the claims are provided in the below listing of claims.

Listing of Claims

1-37 (Canceled)

38. (Currently amended) A transformed bryophyte cell from *Physcomitrella patens* that comprises i) a disrupted endogenous alpha 1,3-fucosyl transferase encoding nucleotide sequence and ii) a disrupted endogenous beta 1,2-xylosyl transferase encoding nucleotide sequence, ~~wherein~~ whereby the bryophyte cell is incapable of forming N-linked glycans with 1,3-linked ~~fucosyl~~ fucosyl and 1, 2-linked xylosyl residues.

39. (Previously presented) A transformed bryophyte cell according to claim 38, wherein the cell further comprises a nucleotide sequence operably linked to an exogenous promoter that drives expression in the bryophyte cell, wherein said nucleotide sequence encodes a glycosylated polypeptide that is expressed in the bryophyte cell.

40. (Previously presented) A transformed bryophyte cell according to claim 39, wherein said glycosylated polypeptide comprises a human glycosylation pattern.

41. (Canceled)

42. (Previously presented) A transformed bryophyte cell according to claim 38, further comprising a nucleotide sequence operably linked to an exogenous promoter that drives expression in the bryophyte cell, wherein said nucleotide sequence encodes a functional human beta 1, 4 galactosyltransferase that is expressed in the bryophyte cell.

43 - 47 (Canceled).

48. (Previously presented) A transformed bryophyte cell according to claim 39, wherein the glycosylated polypeptide is a polypeptide having a primary amino acid sequence of a human glycosylated polypeptide or a primary amino acid sequence of an antibody or an active fragment thereof.

49. (Canceled)

50. (Previously presented) A transformed bryophyte cell according to claim 48, wherein the glycosylated polypeptide is selected from the group consisting of human insulin, preproinsulin, vascular endothelial growth factor (VEGF), proinsulin, glucagon, alpha-interferon, beta-interferon, gamma-interferon, blood-clotting factors VII, VIII, IX, X, XI, and XII, luteinising hormone, follicle stimulating hormone, epidermal growth factor, platelet-derived growth factor, granulocyte colony stimulating factor, prolactin, oxytocin, thyroid stimulating hormone, adrenocorticotrophic hormone, calcitonin, parathyroid hormone, somatostatin, erythropoietin (EPO), beta-glucocerebrosidase, haemoglobin, serum albumin, and collagen.

51-77 (Canceled)

78. (Previously presented) A bryophyte plant or bryophyte tissue comprising a transformed bryophyte cell according to claim 38.

79-80 (Canceled)

81. (Currently amended) A transformed bryophyte cell according to claim 38, wherein said disrupted alpha 1,3-fucosyl transferase encoding nucleotide sequence and said disrupted beta

1,2-xylosyl transferase encoding nucleotide sequence are each independently disrupted by insertion of exogenous nucleic acids or by at least partial deletion of endogenous nucleic acids.

82. (Previously presented) A transformed bryophyte cell according to claim 48, wherein the glycosylated polypeptide is selected from the group consisting of an interferon, a fertility hormone, a growth factor and an enzyme.

83. (Previously presented) A transformed bryophyte cell according to claim 39, further comprising a nucleotide sequence operably linked to an exogenous promoter that drives expression in the bryophyte cell, wherein said nucleotide sequence encodes a functional human beta 1, 4 galactosyltransferase that is expressed in the bryophyte cell.

84. (Previously presented) A transformed bryophyte cell according to claim 83, wherein said glycosylated polypeptide comprises a human glycosylation pattern.

85. (Previously presented) A transformed bryophyte cell according to claim 84, wherein said glycosylated polypeptide is a polypeptide having a primary amino acid sequence of a human glycosylated polypeptide or a primary amino acid sequence of an antibody or an active fragment thereof.

86. (Previously presented) A transformed bryophyte cell according to claim 85, wherein the glycosylated polypeptide is selected from the group consisting of human insulin, preproinsulin, vascular endothelial growth factor (VEGF), proinsulin, glucagon, alpha-interferon, beta-interferon, gamma-interferon, blood-clotting factors VII, VIII, IX, X, XI, and XII, luteinising hormone, follicle stimulating hormone, epidermal growth factor, platelet-derived growth factor, granulocyte colony stimulating factor, prolactin, oxytocin, thyroid stimulating hormone, adrenocorticotrophic hormone, calcitonin, parathyroid hormone, somatostatin, erythropoietin (EPO), beta-glucocerebrosidase, haemoglobin, serum albumin, and collagen.

87. (Previously presented) A bryophyte plant or bryophyte tissue comprising a transformed bryophyte cell according to claim 83.

88 -95 (Canceled)

96 (New) A transformed bryophyte cell according to claim 38, wherein said endogenous alpha 1,3-fucosyl transferase encoding nucleotide sequence is represented by a partial cDNA that has been deposited with GenBank under accession number AJ429145, and wherein said endogenous beta 1,2-xylosyl transferase encoding nucleotide sequence is represented by a cDNA corresponding to the coding region that has been deposited with GenBank under accession number AJ429144.